

FIGURE 1A

441	450	459	468	477	486
TCT TTT GTT GAT AAC TTG AAC CTG CTA AAG GCA ATA ACA GAA AAG GAA AAA ATT					
S F V D N L N L L L L K A I T E K E K I					
495	504	513	522	531	540
GAG AAA GAA AGA CAA TCT ATA AGA AGC TCC CCA CTT GAT AAT AAG TTG AAT GTG					
E K E R Q S I R S S S P L D N K L N V					
549	558	567	576	585	594
GAA GAT GTT GAT TCA ACC AAG AAT CGA AAA CTG ATC GAT TAT GAC TCT ACT					
E D V D S T K N R K L I D D Y D S T					
603	612	621	630	639	648
AAG AGT GGA TTG GAT CAT AAA TTT CAA GAT GAT CCA GAT GGT CTT CAT CAA CTA					
K S G L D H K K F Q D D P D G L H Q L					
657	666	675	684	693	702
GAC GGG ACT CCT TTA ACC GCT GAA GAC ATT GTC CAT AAA ATC GCT GCC AGG ATT					
D G T P L T A E D I V H K I A A R I					
711	720	729	738	747	756
TAT GAA GAA AAT GAC AGA GCC GTG TTT GAC AAG ATT GTT TCT AAA CTA CTT AAT					
Y E E N D R A V F D K I V S K L L N					
765	774	783	792	801	810
CTC GGC CTT ATC ACA GAA AGC CAA GCA CAT ACA CTG GAA GAT GAA GTA GCA GAG					
L G L I T E S Q A H T L E D E V A E					

FIGURE 1B

819	828	837	846	855	864
GTT TTA CAA AAA TTA ATC TCA AAG GAA GCC AAC AAT TAT GAG GAG GAT CCC AAT					
V L Q K L I S K E A N N Y E E D P N					
873	882	891	900	909	918
AAG CCC ACA AGC TGG ACT GAG AAT CAG GCT GGA AAA ATA CCA GAG AAA GTG ACT					
K P T S W T E N Q A G K I P E K V T					
927	936	945	954	963	972
CCA ATG GCA GCA ATT CAA GAT GGT CTT GCT AAG GGA GAA AAC GAT GAA ACA GTA					
P M A A I Q D G L A K G E N D E T V					
981	990	999	1008	1017	1026
TCT AAC ACA TTA ACC TTG ACA AAT GGC TTG GAA AGG AGA ACT AAA ACC TAC AGT					
S N T L T L T N G L E R R T K T Y S					
1035	1044	1053	1062	1071	1080
GAA GAC AAC TTT GAG GAA CTC CAA TAT TTC CCA AAT TTC TAT GCG CTA CTG AAA					
E D N F E E L Q Y F P N F Y A L L K					
1089	1098	1107	1116	1125	1134
AGT ATT GAT TCA GAA AAA GAA GCA AAA GAG AAA GAA ACA CTG ATT ACT ATC ATG					
S I D S E K E A K E E K E T L I T I M					
1143	1152	1161	1170	1179	1188
AAA ACA CTG ATT GAC TTT GTG AAG ATG ATG GTG AAA TAT GGA ACA ATA TCT CCA					
K T L I D F V K M M V K Y G T I S P					

FIGURE 1C

1197	1206	1215	1224	1233	1242
GAA GAA GGT GTT TCC TAC CTT GAA AAC TTG GAT GAA ATG ATT GCT CTT CAG ACC					
E E G V S Y L E N L D E M I A L Q T					
1251	1260	1269	1278	1287	1296
AAA AAC AAG CTA GAA AAA AAT GCT ACT GAC AAT ATA AGC AAG CTT TTC CCA GCA					
K N K L E K N A T D N I S K L F P A					
1305	1314	1323	1332	1341	1350
CCA TCA GAG AAG AGT CAT GAA GAA ACA GAC AGT ACC AAG GAA GAA GCA GCT AAG					
P S E K S H E E T D S T K E E A A K					
1359	1368	1377	1386	1395	1404
ATG GAA AAG GAA TAT GGA AGC TTG AAG GAT TCC ACA AAA GAT GAT AAC TCC AAC					
M E K E Y G S L K D S T K D D N S N					
1413	1422	1431	1440	1449	1458
CCA GGA GGA AAG ACA GAT GAA CCC AAA GGA AAA ACA GAA GCC TAT TTG GAA GCC					
P G G K T D E P K G G K T E A Y L E A					
1467	1476	1485	1494	1503	1512
ATC AGA AAA AAT ATT GAA TGG TTG AAG AAA CAT GAC AAA AAG GGA AAT AAA GAA					
I R K N I E W L K K H D K K G N K E					
1521	1530	1539	1548	1557	1566
GAT TAT GAC CTT TCA AAG ATG AGA GAC TTC ATC AAT AAA CAA GCT GAT GCT TAT					
D Y D L S K M R D F I N K Q A D A Y					

FIGURE 1D

1575	1584	1593	1602	1611	1620
GTG GAG AAA GGC ATC CTT GAC AAG GAA GAA GCC GAG GCC ATC AAG CGC ATT TAT					
V E K G I L D K E E A E A I K R I Y					
1629	1638	1647	1656	1665	1674
AGC AGC CTG TAA AAA TGG CAA AAG ATC CAG GAG TCT TTC AAC TGT TTC AGA AAA					
S S L					
1683	1692	1701	1710	1719	1728
CAT AAT ATA GCT TAA AAC ACT TCT AAT TCT GTG ATT AAA ATT TTT TGA CCC AAG					
1737	1746	1755	1764	1773	1782
GGT TAT TAG AAA GTG CTG AAT TTA CAG TAG TAG TTA ACC TTT TAC AAG TGG TTA AAA					
1791	1800	1809	1818	1827	1836
CAT AGC TTT CTT CCC GTA AAA ACT ATC TGA AAG TAA AGT TGT ATG TAA GCT GAA					
AAA AAA AA 3'					

FIGURE 1E

5' CAG CCG CTG GCT CCG TTT CAC TTC CCA GCC ACC CCC GCT GCT ACC ATG ATC 54  
 9 18 27 36 45  
 TGC CAG CCT GGG TGA TGC TTC CTG CAG GGA CTC TTC TCG GCC CGG GCT GTC AAG 108  
 63 72 81 90 99  
 GAA GGG CTC CCA GAC ATC ACC TCT GCC CGC CGC CAC CTC CTC CAA CTC TCC CAG 162  
 117 126 135 144 153  
 CTC AGC CGG AGC CGG AGC GCG CAA CCA CCA AGT CCG AGA CTG GAG GCA GAT CGG 216  
 171 180 189 198 207  
 GGG GAG GGG AGA AGC GCC AAG AGC CGC GCT GCC CTC CCA GGG AAA CTC ACT GCC GCC 270  
 225 234 243 252 261  
 TAC TCC CAG CCG GCC ACA GTC ACC ACC TCA AAA TGG CGA CGA GAA GGG AGT 324  
 279 288 297 306 315  
 CCG CGC TCC GAC CAC CAT CCA CCT ACT AAG GAA GCG CGC TCT GGC CGG CCC CGG 378  
 333 342 351 360 369  
 CGA TTG GTC ACC GCC CGC TAG GGG ACA GCC CTG GCC TCC TCT GAT TGG CAA GCG 432  
 387 396 405 414 423  
 CTG GCC ACC TCC CCA CAC CCC TTG CGA ACG CTC CCC TAG TGG AGA AAA GGA GTA 486  
 441 450 459 468 477

FIGURE 2A

GCT	ATT	AGC	CAA	TTC	GGG	CAG	GGC	CCG	CTT	TTT	AGA	AGC	TTG	ATT	TCC	TTT	GAA
495					504			513			522			531			540
GAT	GAA	AGA	CTA	GCG	GAA	GCT	CTG	CCT	CTT	TCC	CCA	GTG	GGC	GAG	GGA	ACT	CGG
549					558			567			576			585			594
GGC	GAT	TGG	CTG	GGA	ACT	GTA	TCC	ACC	AAA	TGT	CAC	CGA	TTC	TTC	CTA	TGC	AGG
603					612			621			630			639			648
AAA	TGA	GCA	GAC	CCA	TCA	ATA	AGA	AAT	TTC	TCA	GCC	TGG	CCG	AAA	ATG	GTT	GGC
657					666			675			684			693			702
CCC	ACG	AAG	CCA	CGA	CAA	CTG	GAG	GCA	AAG	AGG	GTT	GCT	CAA	CGC	CCC	GCC	TCA
711					720			729			738			747			756
TTG	GAA	AAC	CAA	ATC	AGA	TCT	GGG	ACC	TAT	ATA	GCG	TGG	CGG	AGG	CGG	GGC	GAT
765					774			783			792			801			810
GAT	TGT	CGC	GCT	CGC	ACC	CAC	TGC	AGC	TGC	GCA	CAG	TCG	CAT	TTC	TTT	CCC	CGC
819					828			837			846			855			864
CCC	TGA	GAC	CCT	GCA	GCA	CCA	TCT	GTC	ATG	GCG	GCT	GGG	CTG	TTT	GGT	TTG	AGC
873					882			891			900			909			918
									M	A	A	G	L	F	G	L	S

FIGURE 2B

927	936	945	954	963	972
GCT CGC CGT CTT TTG GCG GCA GCG GCG ACG CTC CCG GCC GCC CGC GTC					
A R R L L A A A A T R G L P A A R V					
981	990	999	1008	1017	1026
CGC TGG GAA TCT AGC TTC TCC AGG ACT GTG GTC GCC CCG TCC GCT GTG GCG GGA					
R W E S S S F S S R T T V V A P S A V A G					
1035	1044	1053	1062	1071	1080
AAG CGG CCC CCA GAA CCG ACC ACA CCG TGG CAA GAG GAC CCA GAA CCC GAG GAC					
K R P P E P T T P T W Q E D P E P E D					
1089	1098	1107	1116	1125	1134
GAA AAC TTG TAT GAG AAG AAC CCA GAC TCC CAT GGT TAT GAC AAG GAC CCC GTT					
E N L Y E K N P D S H G Y D K D P V					
1143	1152	1161	1170	1179	1188
TTG GAC GTC TGG AAC ATG CGA CTT GTC TTC TTC GGC GTC TCC ATC ATC CTG					
L D V W N M R L V F F F G V S I I L					
1197	1206	1215	1224	1233	1242
GTC CTT GGC AGC ACC TTT GTG GCC TAT CTG CCT GAC TAC AGG ATG AAA GAG TGG					
V L G S T F V A Y L P D Y R M K E W					
1251	1260	1269	1278	1287	1296
TCC CGC CGC GAA GCT GAG AGG CTT GTG AAA TAC CGA GAG GCC AAT GGC CTT CCC					
S R R E A E R L V K Y R E A N G L P					

FIGURE 2C



1305	1314	1323	1332	1341	1350
ATC ATG GAA TCC AAC TGC TTC GAC CCC AGC AAG ATC CAG CTG CCA GAG GAT GAG					
I M E S N C F D P S K I Q L P E D E					
1359	1368	1377	1386	1395	1404
TGA CCA GTT GCT AAG TGG GGC TCA AGA AGC ACC GCC TTC CCC ACC CCC TGC CTG					
1413	1422	1431	1440	1449	1458
CCA TTC TGA CCT CTT CTC AGA GCA CCT AAT TAA AGG GGC TGA AAG TCT GAA AAA					

AAA AA 3'

FIGURE 2D

1	M	G	F	L	G	T	G	T	W	I	L	V	L	V	L	-	-	-	P	I	Q	A	F	P	K	P	G	G	S	Q	2379427
1	M	G	F	L	W	T	G	S	W	I	L	V	L	V	L	N	S	G	P	I	Q	A	F	P	K	P	E	G	S	Q	GI 413764
28	D	K	S	L	H	N	R	E	L	S	A	E	R	P	L	N	E	Q	I	A	E	A	E	E	D	K	I	K	K	T	2379427
31	D	K	S	L	H	N	R	E	L	S	A	E	R	P	L	N	E	Q	I	A	E	A	E	A	D	K	I	K	K	A	GI 413764
58	Y	P	P	E	N	K	P	G	Q	S	N	Y	S	F	V	D	N	L	N	L	L	K	A	I	T	E	K	E	K	I	2379427
61	F	P	S	E	S	K	P	S	E	S	N	Y	S	S	V	D	N	L	N	L	L	R	A	I	T	E	K	E	T	V	GI 413764
88	E	K	E	R	Q	S	I	R	S	S	P	L	D	N	K	L	N	V	E	D	V	D	S	T	K	N	R	K	L	I	2379427
91	E	K	E	R	Q	S	I	R	S	P	P	F	D	N	Q	L	N	V	E	D	A	D	S	T	K	N	R	K	L	I	GI 413764
118	D	D	Y	D	S	T	K	S	G	L	D	H	K	F	Q	D	D	P	D	G	L	H	Q	L	D	G	T	P	L	T	2379427
121	D	E	Y	D	S	T	K	S	G	L	D	H	K	F	Q	D	D	P	D	G	L	H	Q	L	D	G	T	P	L	T	GI 413764
148	A	E	D	I	V	H	K	I	A	A	R	I	Y	E	E	N	D	R	A	V	F	D	K	I	V	S	K	L	L	N	2379427
151	A	E	D	I	V	H	K	I	A	T	R	I	Y	E	E	N	D	R	G	V	F	D	K	I	V	S	K	L	L	N	GI 413764
178	L	G	L	I	T	E	S	Q	A	H	T	L	E	D	E	V	A	E	V	L	Q	K	L	I	S	K	E	A	N	N	2379427
181	L	G	L	I	T	E	S	Q	A	H	T	L	E	D	E	V	A	E	A	L	Q	K	L	I	S	K	E	A	N	N	GI 413764

FIGURE 3A

208	Y	E	E	D	P	N	K	P	T	S	W	T	E	N	Q	A	G	K	I	P	E	K	V	T	P	M	A	A	I	Q	2379427
211	Y	E	E	T	L	D	K	P	T	S	R	T	E	N	Q	D	G	K	I	P	E	K	V	T	P	V	A	A	V	Q	GI 413764
238	D	G	L	A	K	G	E	N	D	E	T	V	S	N	T	L	T	L	T	N	G	L	E	R	R	T	K	T	Y	S	2379427
241	D	G	F	T	N	R	E	N	D	E	T	V	S	N	T	L	T	L	S	N	G	L	E	R	R	T	N	P	H	R	GI 413764
268	E	D	N	F	E	E	L	Q	Y	F	F	N	F	Y	A	L	L	K	S	I	D	S	E	K	E	A	K	E	K	E	2379427
271	E	D	D	F	E	E	L	Q	Y	F	F	N	F	Y	A	L	L	T	S	I	D	S	E	K	E	A	K	E	K	E	GI 413764
298	T	L	I	T	I	M	K	T	L	I	D	F	V	K	M	M	V	K	Y	G	T	I	S	P	E	E	G	V	S	Y	2379427
301	T	L	I	T	I	M	K	T	L	I	D	F	V	K	M	M	V	K	Y	G	T	I	S	P	E	E	G	V	S	Y	GI 413764
328	L	E	N	L	D	E	M	I	A	L	Q	T	K	N	K	L	E	K	N	A	T	D	N	I	S	K	L	F	P	A	2379427
331	L	E	N	L	D	E	T	I	A	L	Q	T	K	N	K	L	E	K	N	T	D	S	K	S	K	L	F	P	A	GI 413764	
358	P	S	E	K	S	H	E	E	T	D	S	T	K	E	E	A	A	K	M	E	K	E	Y	G	S	L	K	D	S	T	2379427
361	P	P	E	K	S	Q	E	E	T	D	S	T	K	E	E	A	A	K	M	E	K	E	Y	G	S	L	K	D	S	T	GI 413764
388	K	D	D	N	S	N	P	G	G	K	T	D	E	P	K	G	K	T	E	A	Y	L	E	A	I	R	K	N	I	E	2379427
391	K	D	D	N	S	N	L	G	G	K	T	D	E	A	T	G	K	T	E	A	Y	L	E	A	I	R	K	N	I	E	GI 413764

FIGURE 3B

# “RED” CODE

418	W L K K H D K K G N K E D Y D L S K M R D F I N K Q A D A Y	2379427
421	W L K K H N K K G N K E D Y D L S K M R D F I N Q Q A D A Y	GI 413764
448	V E K G I L D K E E A E A I K R I Y S S L	2379427
451	V E K G I L D K E E A N A I K R I Y S S L	GI 413764

FIGURE 3C

